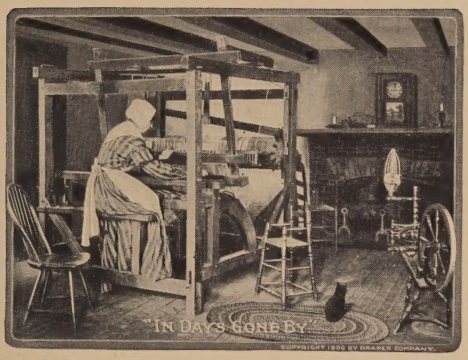
Reception Room

COTTON CHATS



DRAPER COMPANY

TRADE-MARK REG. U.S. PAT. OFF.

HOPEDALE, MASS.

NO. 153. JULY, 1915.

MILLIONS

of Lock Washers are used annually by the automobile manufacturers of this country to secure the bolts and nuts of automobiles and thereby safeguard the lives and property of the automobile traveling public against accident.

The jar of the gasoline engine operated at high speed and the severe strains caused by running over rough roads combine to loosen everything in the machine that is not permanently anchored. It is of interest to know that the lock washers illustrated herewith are approved and used by manufacturers and engineers of national reputation.

In a weaving mill looms are conspicuously subject to wear and tear and one regular duty of loom fixers is the tightening of bolts and nuts that become loose. The reason is obvious. A 40 inch loom for instance on a plain weave operated at 160 picks per minute, on a 54 hours weekly basis makes

26,956,800 PICKS

per annum (without allowance for stops.)

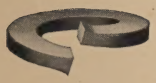
This represents a travel of nearly six feet per pick, or

27,773 MILES

PER ANNUM.

Unlike most conveyances the trips of the shuttle are short and there must be a complete stop and reversal of direction at every alternate pick. This necessitates a neutralizing of the momentum of the shuttle, and although the binder and check perform this operation, there is of necessity much strain and wear. The motions of the loom are largely through cams which produce a shock when operated.

Several years ago we adopted a construction of loom frames where all joints are machined together making a better fit at such joints and also more uniformity in measurements in the working parts of the loom.

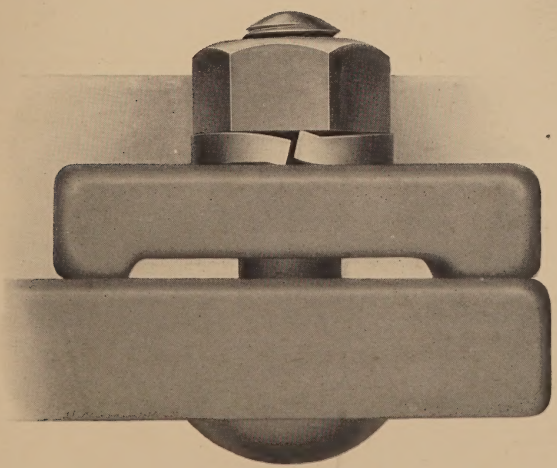


Recognizing the old difficulty of bolts and nuts becoming loose and the resulting troubles which follow, we have adopted the example of the automobile makers and are now equipping our looms with

POSITIVE LOCK WASHERS

in all places where they can be used. An actual count on one of our narrow looms showed 185 of these washers.

While this means a material added cost to our company, it also means a great reduction in wear and tear of looms to our customers, with a corresponding reduction in the labor of loom fixers and in cost of supplies. A recent report from a mill where new looms provided with lock washers are being started showed less general breakage of parts than usual and practically no call for tightening of bolts.



Our illustration shows the appearance of a joint on the Northrop Loom secured by the lock washer. The separate illustrations of the washers show the sharp angular sections which bed themselves into the material on either side.

We again call attention of our customers to the important improvements in general construction of Northrop looms compared with common looms of other make which are yet to be found in some mills.

Our looms are heavier; the frames are machined together; they are secured by bolts with lock washers; the gears have cut teeth; our let-off, take-up and harness motion are all from our own designs and are all improvements over the older motions.

Northrop looms are now being operated on practically all classes of cotton goods that can be woven with one shuttle; such looms make a saving in labor cost of weaving; improve the quality of the product and make an easier job for the weaver, at increased pay.